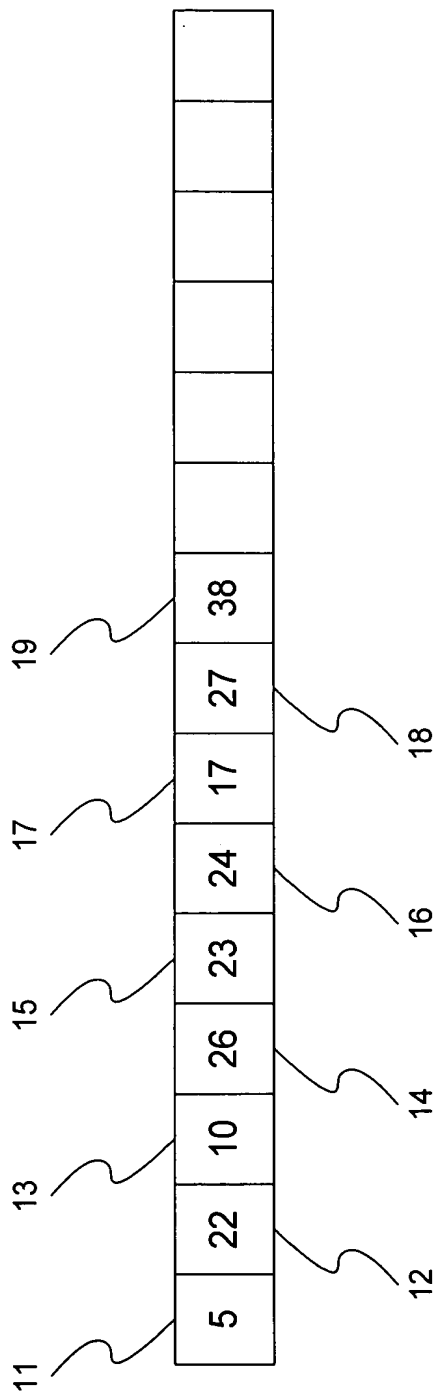


FIG. 1
(Prior Art)



20

FIG. 2
(Prior Art)

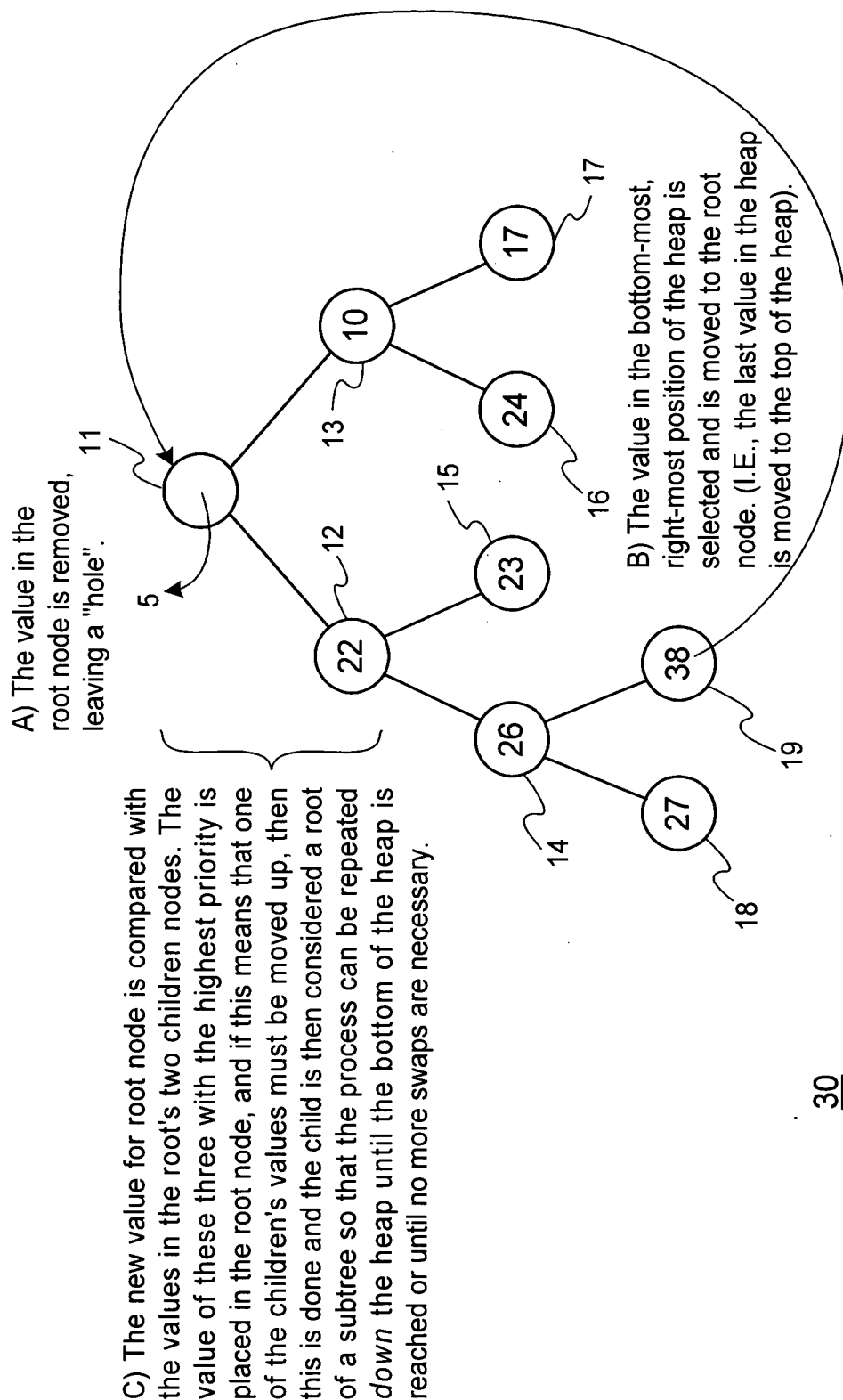
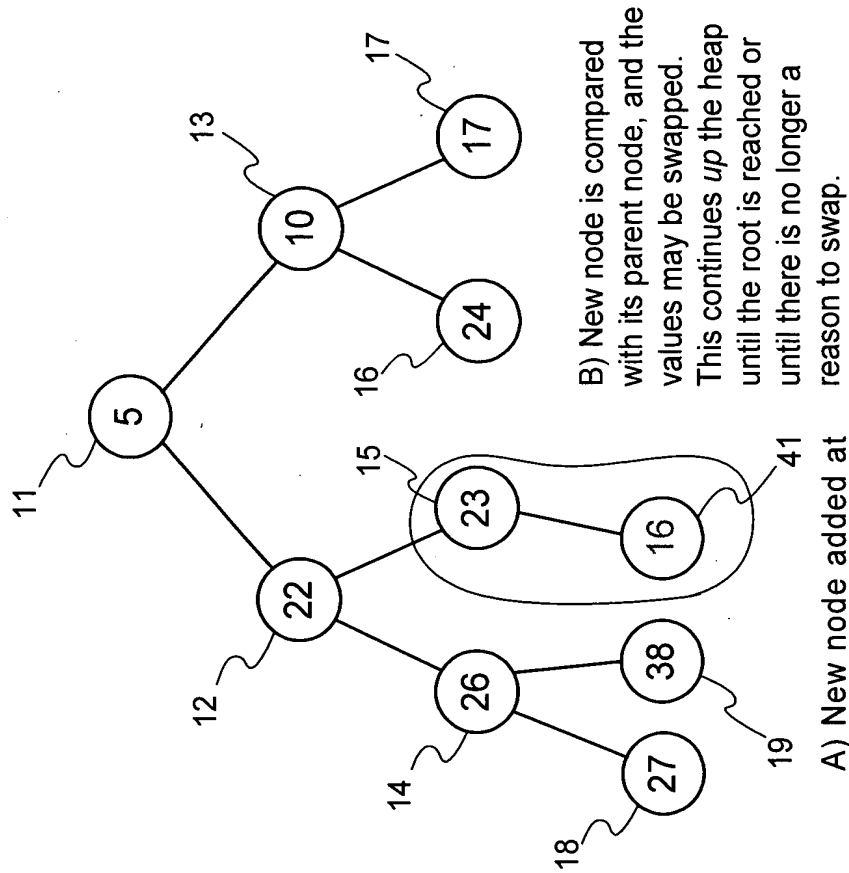


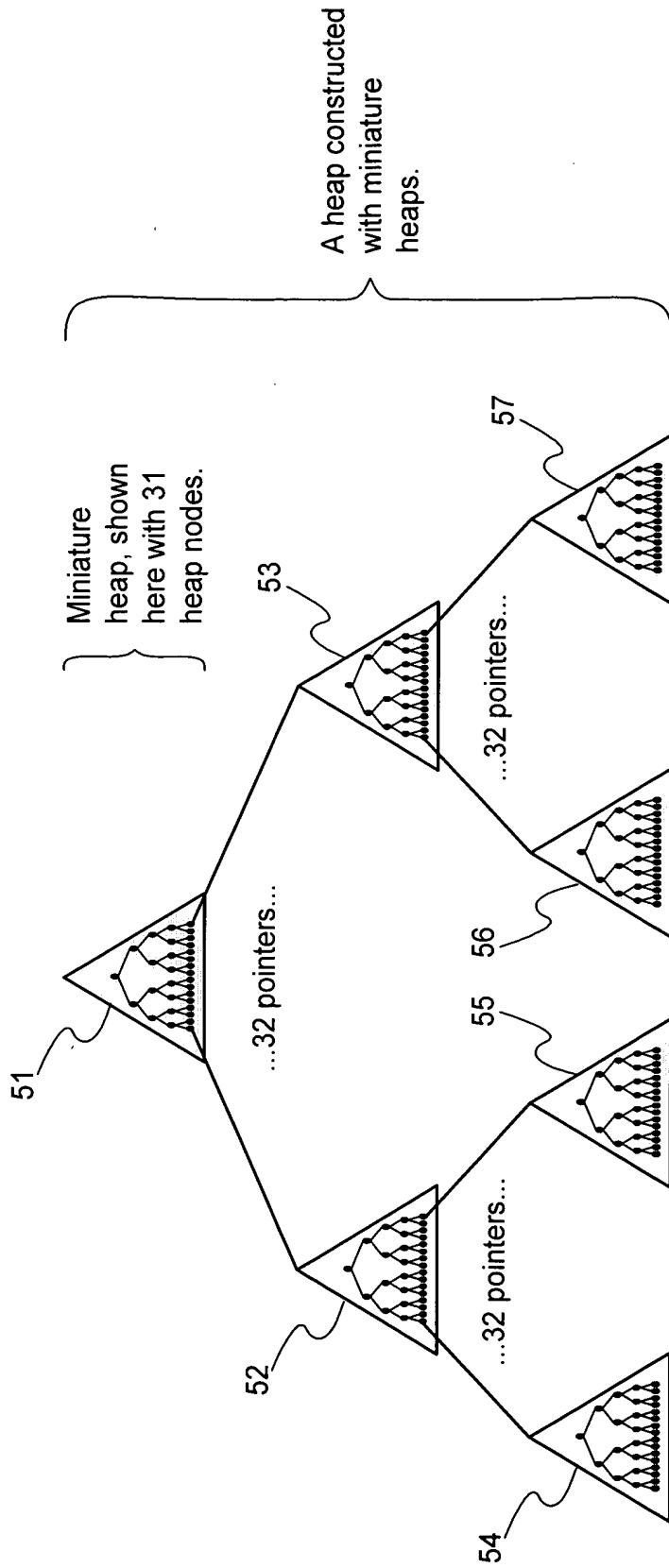
FIG. 3
(Prior Art)



B) New node is compared with its parent node, and the values may be swapped. This continues *up* the heap until the root is reached or until there is no longer a reason to swap.

A) New node added at bottom-most, left-most "hole" of heap (i.e., the first unused position).

FIG. 4
(Prior Art)



50

FIG. 5

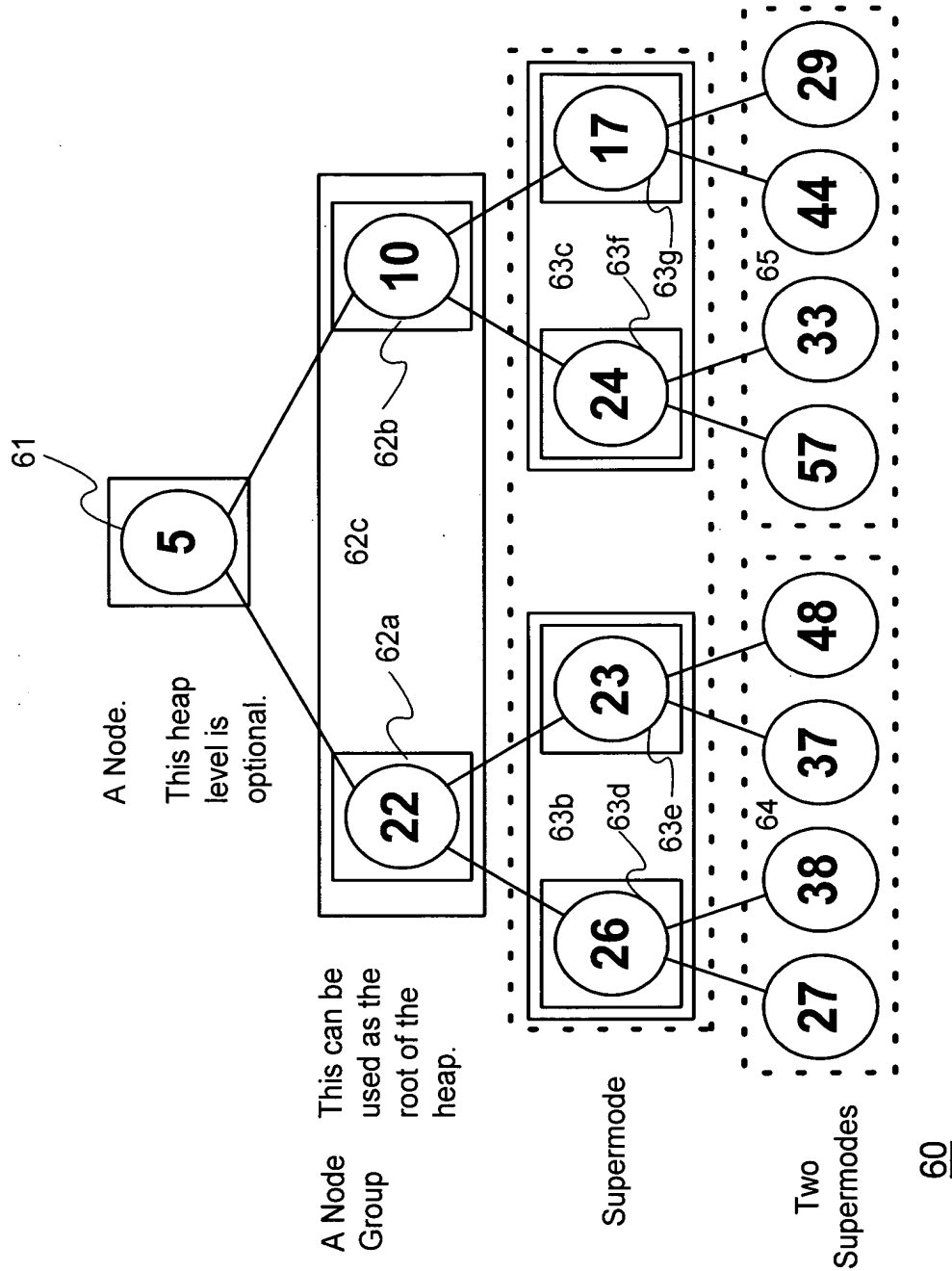


FIG. 6

Each node is stored in a random memory location - i.e., the horizontally or vertically adjacent nodes on the diagram are not stored in contiguous memory.

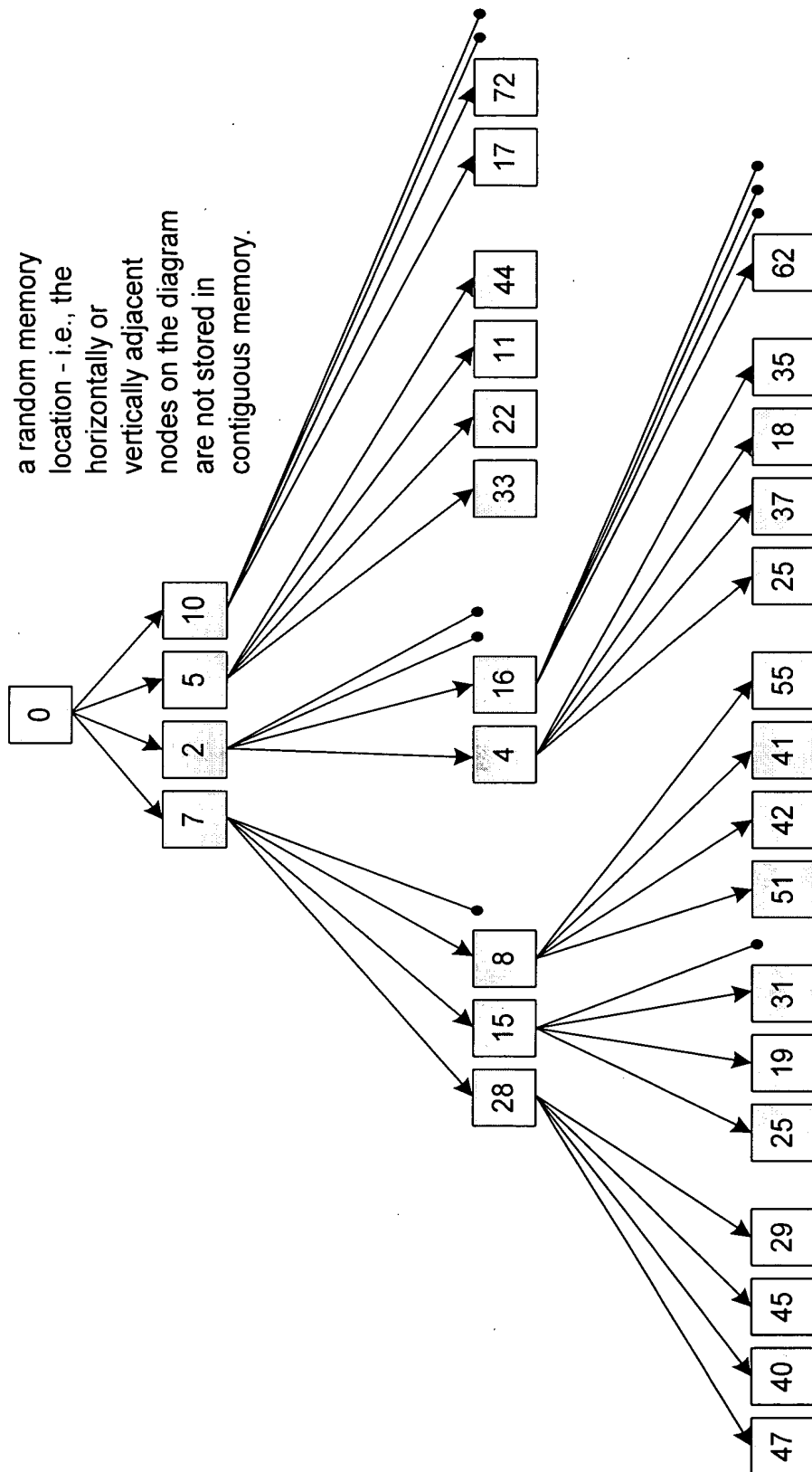


FIG. 7

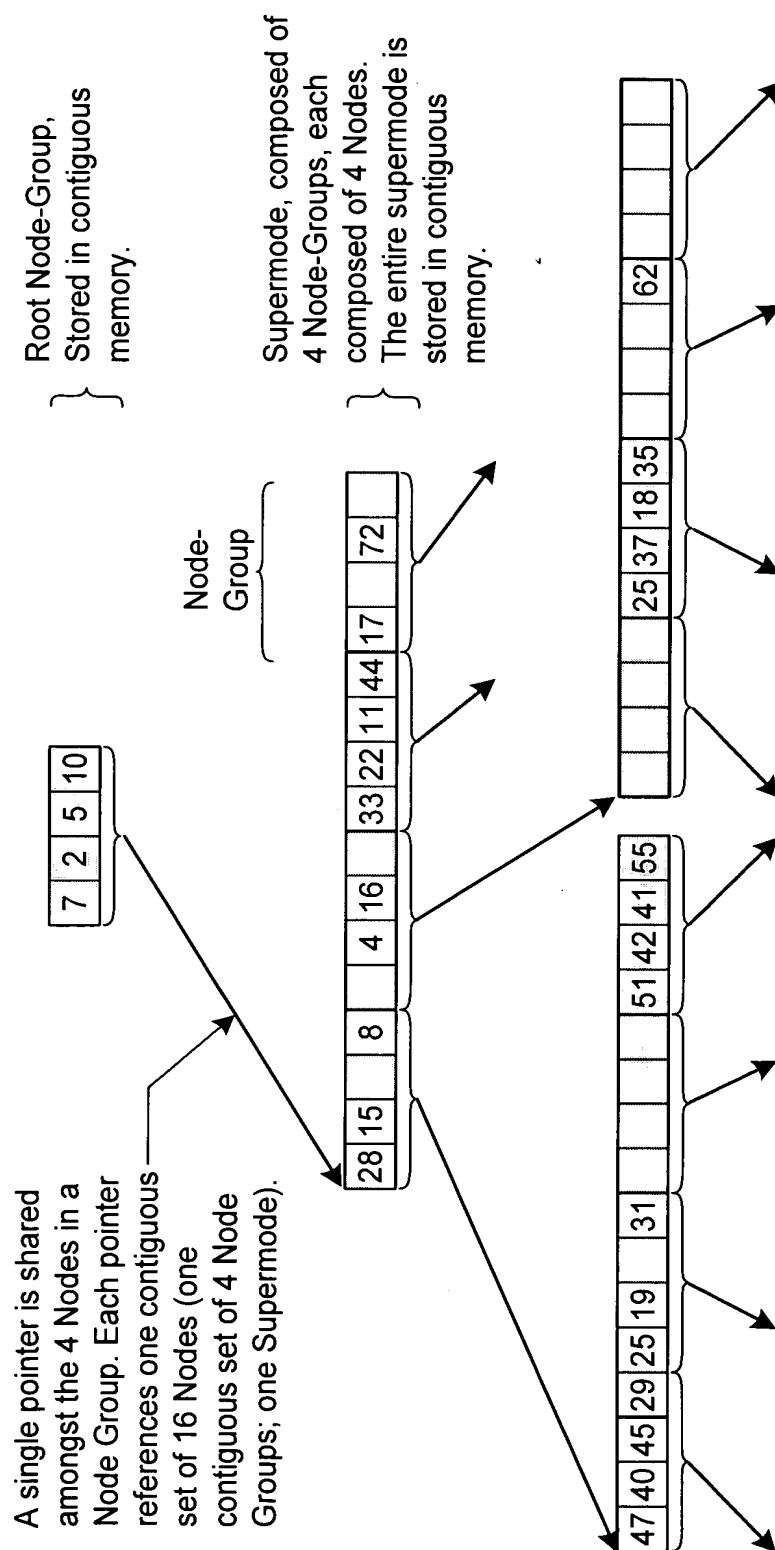


FIG. 8

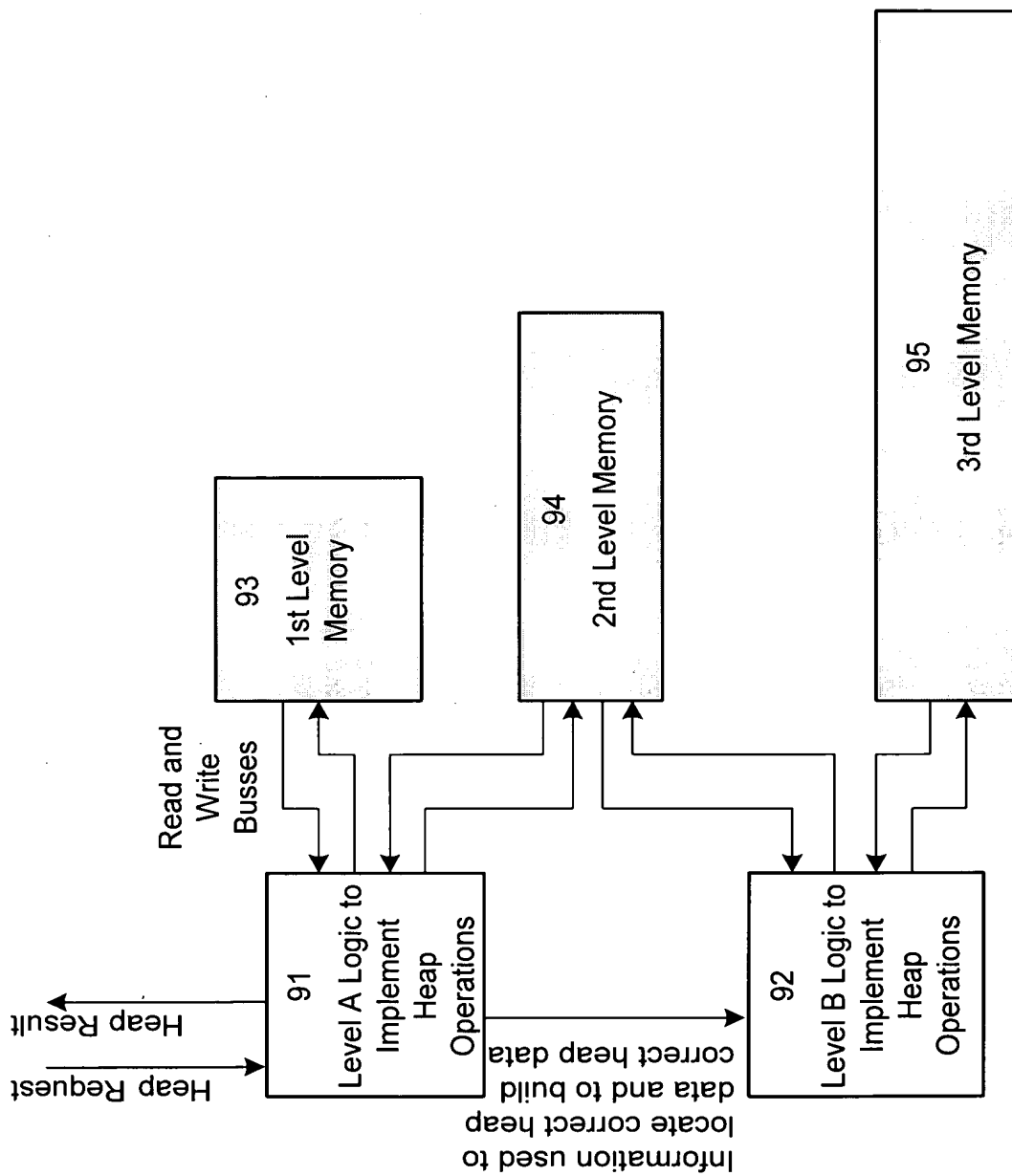
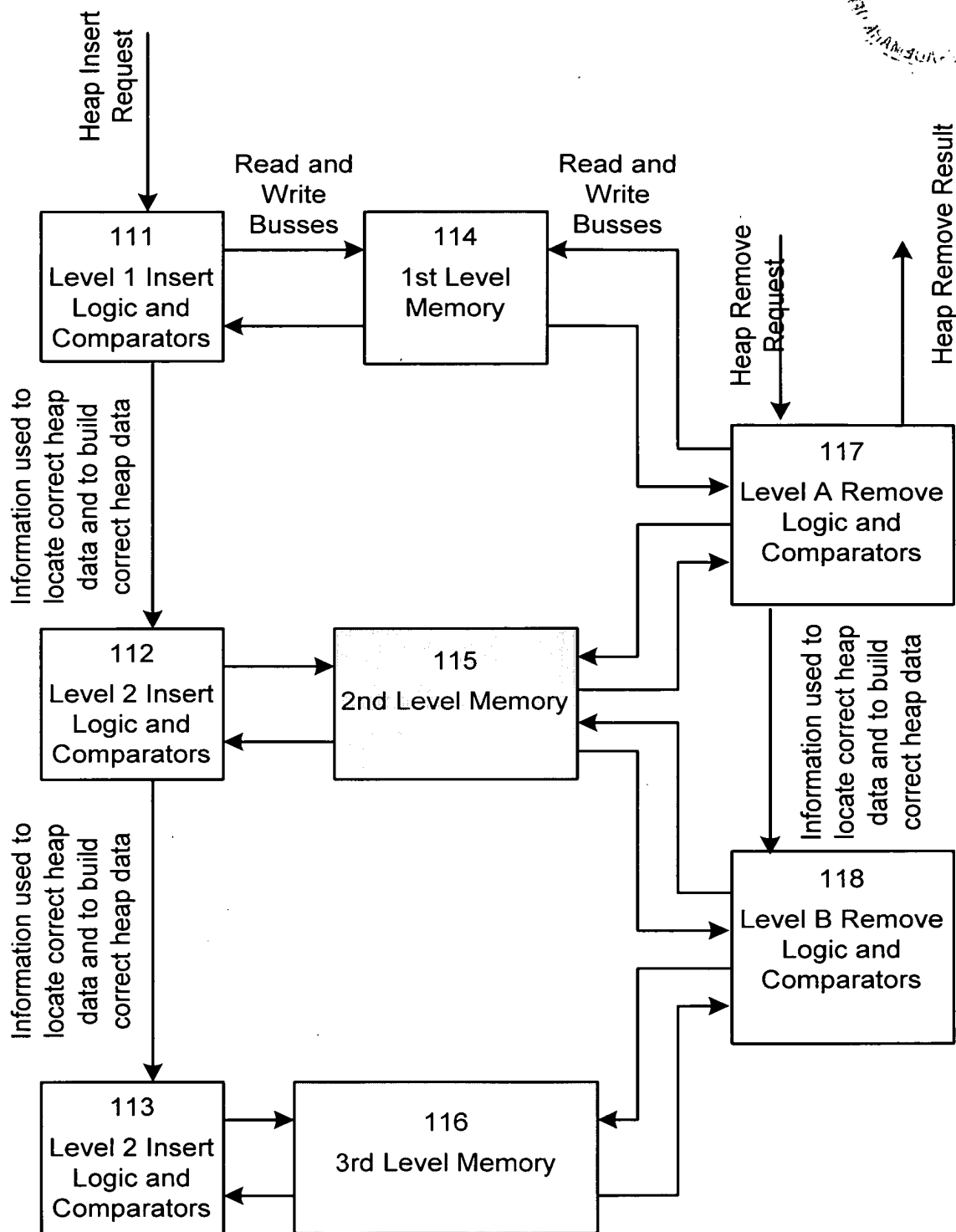


FIG. 9

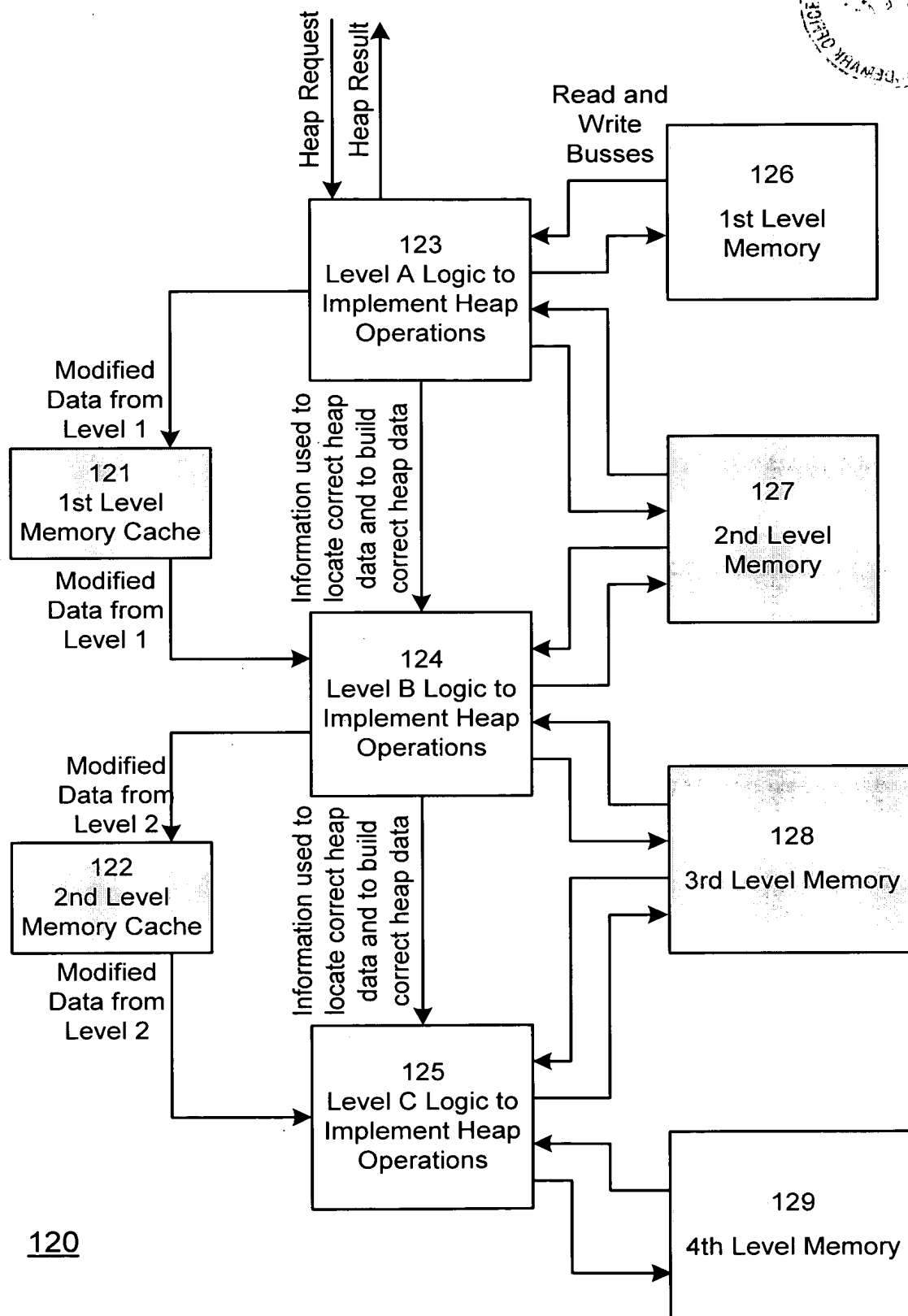
	time.....>														
Read Level 1 RAM	A	B	C	D	E										
Write Level 1 RAM			A		B	C	D	E							
Level A Comparisons		A	A	B	B	C	C	D	D	E	E				
Read Level 2 RAM		A	B	C		D		E							
Write Level 2 RAM					A		B	C	D	E					
Level B Comparisons			A	A	B	B	C	C	D	D	E	E			
Read Level 3 RAM			A	B	C		D		E						
Write Level 3 RAM						A		B	C	D	E				
Level C Comparisons					A	A	B	B	C	C	D	D	E	E	
Read Level 4 RAM				A	B	C		D		E					
Write Level 4 RAM						A	B	C	D	E					

FIG. 10



110

FIG. 11



120

FIG. 12

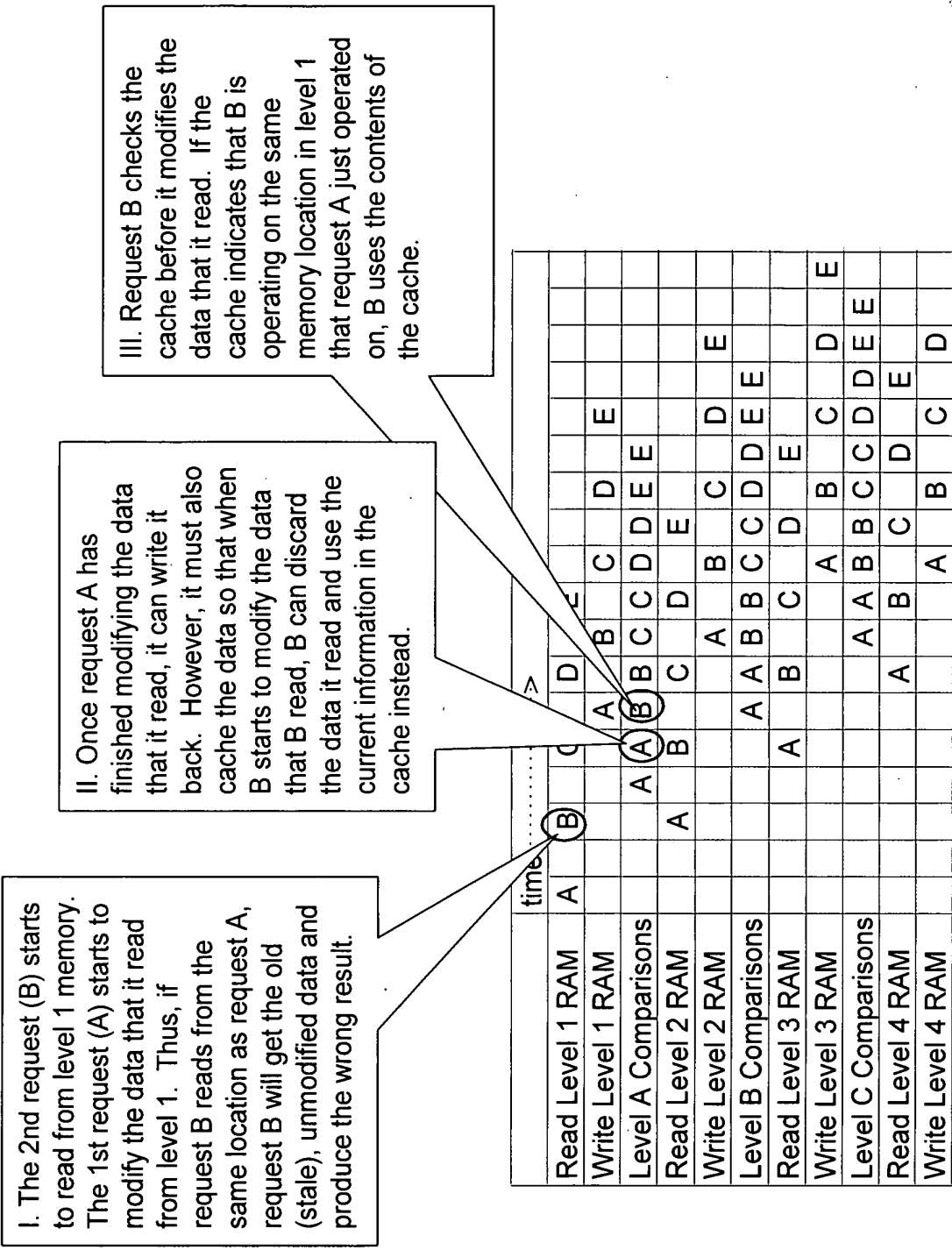


FIG. 13